

## CLAIMS

1. A cable connection method for connecting an end of the conductor of a cable to the connecting face of a contact of a connector or substrate such that the lengthwise direction of said connecting face and the lengthwise direction of said conductor are mutually matched in the connection, said method characterized in that

said end of said conductor is pressured against said connecting face by a pair of electrodes mutually separated in the lengthwise direction of said conductor and an electric current is passed between said pair of electrodes, welding said end of said cable and said connecting face together.

2. The cable connection method according to claim 1, characterized in that the state of said welding is within the scope from the condition in which the depth at the top of a color changed part forming an arc on said contact is above 0.1 mm to the condition immediately prior to the condition of blasting of said contact.

3. The cable connection method according to claim 1, characterized in that the state of said welding is within the scope from the condition in which the dispersion of a layer of precious metal thinly covering the surface of said conductor of said cable forms an alloy layer of said precious metal in said contact that is of a depth of  $5\mu\text{m}$  to the condition in which said alloy layer is half the thickness of said contact.

4. The cable connection method according claim 1, characterized in that the part of said conductor that comes into contact with the connecting face of said contact is formed as a flat surface and the part of said conductor that comes into contact with said electrodes is formed as a flat surface.

5. The cable connection method according claim 2, characterized in that the part of said conductor that comes into contact with the connecting face of said contact is formed as a flat surface and the part of said conductor that comes into contact with said electrodes is formed as a flat surface.

6. The cable connection method according claim 3, characterized in that the part of said conductor that comes into contact with the connecting face of said contact is formed as a flat surface and the part of said conductor that comes into contact with said electrodes is formed as a flat surface.

7. A cable having a configuration in which an end of the conductor of a cable is connected to the connecting face of a contact of a connector or substrate such that the lengthwise direction of said connecting face and the lengthwise direction of said conductor are mutually matched in the connection, said cable characterized in that a long elongated welded part is formed in the lengthwise direction of said conductor in the connecting part between said conductor and said contact, and the state of the welding in said welded part is within the scope from the condition in which the depth

at the top of a color changed part forming an arc on said contact is above 0.1 mm to the condition immediately prior to the condition of blasting of said contact.

8. A cable having a configuration wherein an end of the conductor of a cable is connected to the connecting face of a contact of a connector or substrate such that the lengthwise direction of said connecting face and the lengthwise direction of said conductor are mutually matched in the connection, said cable characterized in that

a long elongated welded part is formed in the lengthwise direction of said conductor in the connecting part between said conductor and said contact, and

the state of the welding in said welded part is within the scope from the condition in which the dispersion of a layer of precious metal thinly covering the surface of said conductor of said cable forms an alloy layer of that precious metal in said contact that is of a depth of  $5\mu\text{m}$  to the condition in which said alloy layer is half the thickness of said contact.

9. The cable according to claim 7, characterized in that the part of said conductor that comes into contact with said connecting face of said connector is formed as a flat surface and the part of said conductor that comes into contact with said electrodes is formed as a flat surface.

10. The cable according to claim 8, characterized in that the part of said conductor that comes into contact with said connecting face of said connector is formed as a flat

surface and the part of said conductor that comes into contact with said electrodes is formed as a flat surface.

11. A cable welding device for connecting an end of the conductor of a cable to the connecting face of a contact of a connector or substrate such that the lengthwise direction of said connecting face and the lengthwise direction of said conductor are mutually matched in the connection, characterized in that said cable welding device comprising:

a base on which said connector or substrate furnishing said contact can be disposed;

a pair of electrodes mutually separated in the lengthwise direction of said conductor;

pressure means capable of pressing, via said pair of electrodes, said end of said conductor in contact with said contact, thereby pressuring said end of said conductor against said connecting face; and

voltage applying means capable of applying voltage between said electrodes.

12. The cable welding device according claim 11, characterized by having a configuration wherein when a plurality of groupings of a contact and an end of a conductor exist, said pair of electrodes moves to positions enabling each of said groupings to be welded and applies pressure to each of said groupings.

13. A cable characterized in that said cable comprising:

a connector including a base having a plurality of conductive contacts; and

a cable main body including a plurality of wire conductors that connect respectively to the plurality of contacts,

wherein each of the wire conductors and each of the contacts are mutually and electrically connected by welding.

14. The cable according to claim 13, characterized in that

said base includes a flat plate having a front face and a rear face, a plurality of strip-shaped first signal contacts positioned at determined intervals along the y axial direction that is one direction parallel to said front face and disposed extending in the x axial direction that is the other direction parallel to said front face, a plurality of strip-shaped second signal contacts disposed on said rear face and opposing said first signal contacts such that said flat plate is interposed therebetween, and a plurality of ground contacts disposed on said front face or said rear face, extending in the x axial direction and between each of said signal contacts, and

said wire conductor includes a first signal wire, a second signal wire and a drain wire,

said first signal wire connecting to said first signal contact, said second signal wire connecting to said second signal contact and said drain wire connecting to said ground contact.

15. The cable according to claim 14, characterized in that at the front face and the rear face each of said ground contacts are raised in the z axial direction that is a direction

orthogonal to said front face and said rear face, and each raised part has a conductor extending in the x axial direction.

16. The cable according to claim 14, characterized in that each first signal wire, each second signal wire and each drain wire of a plurality of cables is connected to each first signal contact, each second signal contact and each ground contact of said connector.

17. The cable according to claim 15, characterized in that each first signal wire, each second signal wire and each drain wire of a plurality of cables is connected to each first signal contact, each second signal contact and each ground contact of said connector.